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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/035,147

01/04/2002

Hiroshi Kondoh

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06/15/2004

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EXAMINER

VANNUCCI, JAMES

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

10/035,147

Applicant(s)

KONDOH ET AL.

Examiner

Jim Vannucci

Art Unit

2821

pw

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19,21,22,25,27,28,31,33,34,37 and 38 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 37 and 38 is/are allowed.  
6) ☒ Claim(s) 19,21,22,25,27,28,31,33 and 34 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 04 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4-30, 10-4 & 4-17.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 37 is objected to because of the following informalities: it appears a word is missing before the word "surface" in line 3 of the recitation. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 19, 25 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Turunen(5,278,528).

Claims 19, 25 and 31, figure 4 discloses a communication device comprising a box with a wall(15) of the box carrying high frequency circuits and having a periodic structure(14) which filters undesired signals.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2821

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21-22, 27-28 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turunen in view of Okabe et al.(6,031,494).

Claims 21, 23, 27, 29 and 33, figure 1 of Okabe discloses an antenna(3) formed in an opening of a box and connected to high frequency circuitry. A surface of the antenna(3) disclosed in Okabe is outside the box for improved antenna performance(abstract).

Claims 22, 24, 28, 30 and 34, the back portion of the antenna(3) disclosed in figure 1 of Okabe which is mounted on the pcb would be inside the box(abstract) and a window(21) for passage of radio waves is provided on a wall of said box in the vicinity of the antenna(3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to position an antenna as disclosed in Okabe in the device disclosed in Turunen for improved performance as disclosed in Okabe.

#### ***Allowable Subject Matter***

6. Claims 37-38 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter.

The limitations that are primarily responsible for distinguishing these claims over the prior art are the limitations concerning the semiconductors mounted on surface of the metallic base plate and a part of a ceiling part of the lid facing the inside of the box

has a periodic structure to prevent propagation of undesired signal as recited in claim 37.

### ***Response to Arguments***

8. Applicant's arguments filed April 30, 2004 have been fully considered but they are not persuasive. Examiner uses the broadest definition for each recited limitation.

Turunen discloses a radio telephone housing which is a box that has walls; the walls being the sides of the housing and any planar dividing or supporting structures interior to the housing. The printed board(15) is a wall and is interior to the box; consequently it is an interior wall. The filter(14) is a portion of the interior wall(15) and is a periodic structure.

Okabe discloses an antenna in the interior of the box. The back portion of the antenna(3) disclosed in Okabe is inside the box. This is evident by considering the fact that the pcb(1) is clearly inside the box and the pcb(1) constitutes the back portion of the antenna element(1), thus the back portion of the antenna must also be inside the box. It is not recited that the antenna must completely be inside the box.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### ***Terminal Disclaimer***

10. The terminal disclaimer filed on April 30, 2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Patent 6,337,661 has been reviewed and is accepted. The terminal disclaimer has been recorded.

#### ***Correspondence***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jim Vannucci whose phone number is (571) 272-1820.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications only may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such

Art Unit: 2821

papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 872-9306.



James Vannucci